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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/955,540

09/18/2001

William G. Dewenter

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9789

23494

7590

09/21/2006

TEXAS INSTRUMENTS INCORPORATED

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EXAMINER

TRAN, DZUNG D

ART UNIT

PAPER NUMBER

2613

DATE MAILED: 09/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/955,540

Applicant(s)

DEWENTER, WILLIAM G.

Examiner

Dzung D. Tran

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Specification***

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Orino U.S. Patent no. 5,627,669 in view of Ericsson U.S. Publication no. 2005/0187731.

Regarding claim 1, Orino discloses in figure 1, a communications system, comprising:

a transmitter having a light source (laser diode 1) for generating a directed light beam modulated to transmit a data signal (col. 4, lines 51-52);

a controllable mirror 4 for directing the light beam toward a receiver;

a photodiode 8 for receiving light reflected from substantially the same direction as the light is directed by the mirror 4; and

control circuitry (11, 12), coupled to the photodiode 8 and to the mirror 4, for controlling the aim of the mirror (col. 5, lines 6-12); and

a receiver, comprising: a lens 7; a photodiode 6 for receiving incident light from the transmitter through the lens 7.

Orino differs from claim 1 of the present invention in that Orino does not disclose a receiver comprises a reflective ring surrounding the lens, for reflecting incident light from the transmitter back to the transmitter.

Ericsson discloses in Figures 4 and 5Aa receiver comprises lens 27, a detector 28 and a ring of reflector 33 of the corner cube type surrounding the lens 27, capable of reflecting incident light from the transmitter back to the transmitter (see Figures 1-3, page 4, paragraph 0058).

At the time of the invention was made, it would have been obvious to a person of ordinary skill to replace the receiver of Orino with receiver taught by Ericsson. One of ordinary skill in the art would have been motivated to do that in order to redirect the optical beam back to the source transmitter. Thus it enhances the alignment between the two transceivers.

Regarding claim 2, Ericsson discloses in Fig. 4, the corner cube type reflector 33 is mounted near the periphery of the disc and the reflector 33 is movable between positions with determinable positions (e.g., see page 4, paragraph 0058, it is equivalent to the mirror element having a frame, a mirror surface, and a plurality of hinges). Furthermore, reflector element formed of a single piece of crystalline material is well known in the art.

Regarding claim 3, Ericsson discloses the reflective ring comprises a plurality of corner cube elements (page 4, paragraph 0058).

Regarding claim 4, Orino discloses light source is a laser diode 1.

Regarding claim 5, Orino discloses the transmitter further comprises: a lens 2 for spreading the modulated laser beam. Furthermore, whether or not, the lens 2 for spreading the modulated laser beam to have a spot size approximately the same size as an outer of the reflective ring is merely an engineering design choices.

### ***Response to Arguments***

3. Applicant's arguments filed on 07/13/2006 have been fully considered but they are not persuasive.

**A Rejection of claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Orino in view of Ericsson.**

Applicant argues that the Ericsson system utilizes a transmitted light beam to detect the orientation of the vehicle 3 and there is no optical transceiver in the Ericsson vehicle 3. However, Examiner rejected the claim 1 under 35 U.S.C. 103(a) as being unpatentable over Orino U.S. Patent no. 5,627,669 in view of Ericsson U.S. Publication no. 2005/0187731, that is replace the receiver of Orino with receiver taught by Ericsson in the system of Orino.

### ***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dzung D Tran whose telephone number is (571) 272-3025. The examiner can normally be reached on 9:00 AM - 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Dzung Tran  
09/16/2006

*Dzung Tran*  
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PRIMARY PATENT EXAMINER